

# MARINE REVIEW.

VOL. IV.

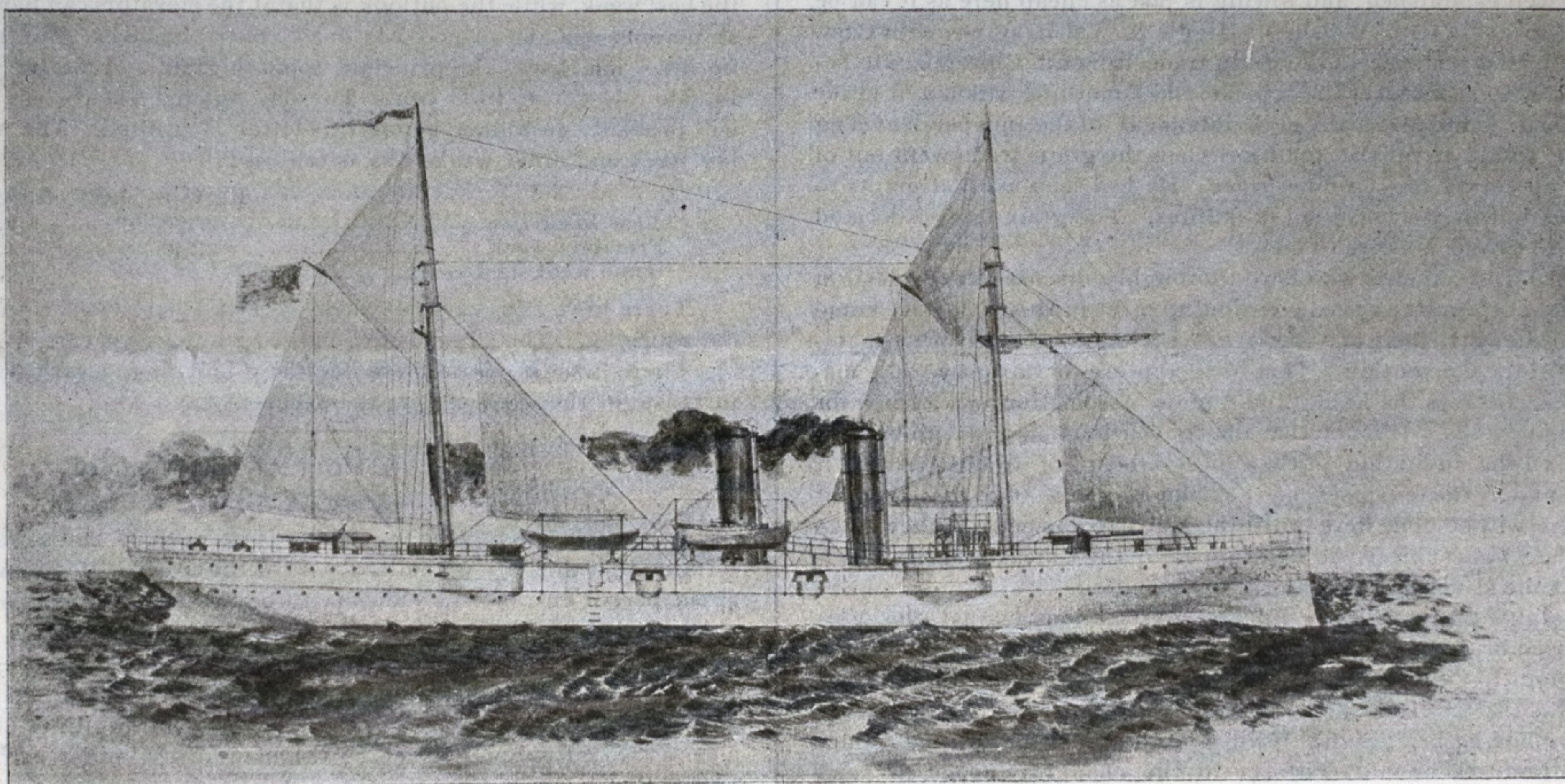
CLEVELAND, OHIO, THURSDAY, NOVEMBER 12, 1891.

No. 20.

## United States Cruiser Detroit.

The City of the Straits has had a cruiser named in its honor. The boat was launched at Baltimore a few days ago, and President Harrison, Secretary Tracy and a large number of navy and army officials were in attendane. Cruiser No. 10, as the Detroit has generally been designated, is one of triplets, two of which are being built at Baltimore and the third at Boston. They are known as the 2,000-ton cruisers, and are a size larger than the Yorktown class. They are also to be of much higher speed, as their machinery is to develop 5,400 horse-power, 2,000 more than was calculated for the Concord and Bennington, and should drive them at the rate of 18 knots per hour. Their length is 257 feet, beam 37 feet, draught 14½ feet; rig, two-masted schooner, spreading 6,289 square feet of canvas.

ence. Article XVII of the treaty in question says that the "British government engages to urge upon the government of the Dominion of Canada to secure to the citizens of the United States the use of the Welland, St. Lawrence and other canals of the Dominion on terms of equality with the inhabitants of the Dominion. And the government of the United States engages that the subjects of Her Britannic Majesty shall enjoy the use of the St. Clair Flats canal on terms of equality with the inhabitants of the United States." The sentence "On terms of equality with the *inhabitants*, etc." is certainly plain enough as regards consumers and citizens generally, not vessels especially. It is also plain that there is discrimination in compelling American citizens to pay on such freight as grain and coal greater canal charges than those paid on the same commodities bound for Ca-



THE UNITED STATES CRUISER DETROIT.

## Welland Canal Tolls and Rebates.

The Montreal Gazette, organ of the Canadian government for the province of Quebec, joins with other leading newspapers of the Dominion in discussing the matter of Welland canal tolls and rebates, but is hardly as earnest in supporting the government policy of discrimination against American consumers of coal, grain and other leading commodities passing through the canal. This is natural enough, especially as regards grain, the most important item of canal freight, because Montreal, unlike Kingston, would be benefited if the government allowed a rebate on grain transported to Montreal over the American route, by way of Ogdensburg, equal to that allowed on the Canadian route by way of Kingston. Montreal being a port of export, wants as much of the grain as it is possible to secure, and probably cares but little whether it is received by way of Ogdensburg or Kingston. With Kingston and the government officials who are endeavoring to favor the forwarding interests of that port the situation is different.

But the Gazette, as well as other Canadian newspapers that have taken up the subject, avoids the issue upon which lake shipping interests on this side have sent a protest to the state department to be considered at the coming reciprocity confer-

nadian ports. The question is not so much one of discrimination against American vessels as it is against the *inhabitants* of the United States. United States coasting regulations may be considered at the conference, and it is to be hoped that other questions of equal importance will also be acted upon, but there is no reason why these questions should have any bearing upon plain treaty relations, governing, especially the St. Clair and St. Mary's Falls canals on the part of the United States and the Welland and St. Lawrence canals on the part of Canada. The Gazette makes the claim that the right of Canada to devise such a policy as suits her own interests must not be disputed. If such is the case there is an alternative demanded by American interests. Let our government require on grain passing through the St. Clair canal and bound for Montreal a toll equal to that now collected at the Welland canal on grain bound to American ports. This is all that is asked of the state department in its dealings with the Canadian commissioners, but there is a general interest in the subject. The Detroit board of trade has joined the Lake Carriers' Association in forwarding a statement of the situation to Secretary Blaine, and it is more than probable that before the conference is held resolutions protesting against the Canadian policy will have been adopted by every commercial body on this side of the lakes.



## CHICAGO LAKE INTERESTS.

WESTERN OFFICE, MARINE REVIEW,  
No. 210 So. Water Street, CHICAGO, Ill., Nov. 12.

Chicago has been the tail to the Lake Superior kite in the grain trade the past week, and the question of freight rates has been settled, not here but at the head of Lake Superior. I can see no reason for expecting an unusually heavy movement of grain from here for the balance of the season. Four cents is being paid on corn and  $4\frac{1}{4}$  cents on wheat to Buffalo. While these rates are far better than during most of the season they are much less than would have been had the movement of grain come up to expectations in August and September. The western railroads were as wide of the mark in estimating the grain movement as vesselmen. It may be that the last weeks of the season will see more grain moving from Chicago, but the outlook is not now that way.

A report is current that the Rock Island railroad will build a big elevator on the Calumet river at South Chicago. Although the railroad people profess to know nothing about the matter, still it is certain that there is something in it. The Rock Island has a switch running into South Chicago and an elevator there would be handier than on Chicago river in the handling of cars. It is certain that if the elevators begin going to South Chicago, Chicago will have a serious rival in the grain trade. The Calumet river may have advantages over Chicago river, particularly the south branch of the latter, which will prove very attractive to the grain trade.

Capt. J. L. Higgle, President of the Vessel Owners Towing Company, in speaking of the proposed removal of the elevators. "It is all bosh. Some of these fellows, I suppose, own real estate in that vicinity and are noising this around to the advancement of their interests. The grain trade is too well established, and towing is just as cheap here as it can be in South Chicago." Capt. Walsh, of Higgle & Walsh, agrees with Capt. Higgle about the removal of the grain trade to South Chicago. He believes it merely to be a real estate scheme, and something which will never be done. Capt. John McCarthy superintendent of the Independent Tug Line said he would never see the time when the grain trade went out of Chicago to go down the Calumet river. He had seen many attempts to divert trade, but they all resulted in failures. The grain trade is located on Chicago river and is there to stay.

The Lake Line Agents who have thoroughly discussed the question of calling the deep waterways convention to meet in this city, have come to the conclusion that the Lake Carriers' Association is the proper organization to call the convention. That body represents the entire lake marine interests, whereas the Lake Line Agents' Association was formed for purely local purposes. It is felt that the convention had ought to be held in Chicago on the invitation of the Chicago board of trade, but that it should be under the auspices of the lake carriers. On this account nothing more will be done here until the lake carriers act. If they make no move the whole subject will be dropped by the Chicago marine interest. This is the situation regarding the convention.

The complaint of the Line Agents' Association against the Fort Wayne railroad bridge near Nineteenth street, has been referred by the war department to Capt. Marshall, the United States engineer here. The position of the marine interests is contained in the paragraph "It is the duty of those having bridges over navigable waters of the United States that these structures should conform to the changing needs of commerce." In this the marine men of Chicago have struck the key note of the present situation regarding bridges.

It is likely that the bar which has formed at St. Joseph will prevent a winter line of boats being established between here and that point. Grand Haven is also badly effected by these sand bars, which have been thrown up at all east shore points, except Ludington, during the fall. Col. Ludlow who has charge of the government work at east shore points, could do no better service to the marine interests than to have dredging done before the close of navigation. Very little work is required to make the harbor at St. Joseph, Grand Haven and Manistee passable for boats during the winter. At present bars extend from the mouth of each of these harbors, and it is extremely dangerous for boats to enter or leave them when a sea is running. I believe that these improvements are so necessary that Col. Ludlow is amply justified in expending the small amount required, under the act of 1884, which provides for emergency expenditures, even if the appropriations are fully exhausted. In fact, it is for just such cases as these that the provision of the act of 1884 was made. If ever an emergency in river and harbor work existed, it is at the east shore ports just at present.

## Kingston Harbor Matters.

Special Correspondence to the MARINE REVIEW.

KINGSTON, Ont., Nov. 12.—Four large western steamers and vessels have applied for accommodation at the new dry dock during the winter. Among them is the Cibola, the largest craft on Lake Ontario. It was to accommodate her that the dock was enlarged. The dock is now finished, and the total cost is placed at \$450,000.

James Stewart, agent for the Kingston & Montreal Forwarding Com-

pany, says the recent promptness with which the U. S. government permitted that company's vessel, ashore at Charlotte, to be released by their own steamer, is a strong indication of the desire of the Americans for reciprocity in wrecking. Ten years ago the Donnelly Wrecking Company was kept busy. Wrecks are now so few and far between in this locality that employment calls them away to Georgian bay frequently.

The Montreal Transit Company is going to send a tow of laden barges down the Galop's rapids. The result will be awaited with interest. If it meets with no accident and the trip is considered safe, this channel will be used generally when the water in the canals is low.

The huge dredge Sir Hector has been purchased by the contractors at work on the Morrisburg canal.

The Union Bank of Montreal has instituted proceedings in re-vendication against the Kingston & Montreal Forwarding Company on 18,518 bushels of grain, claimed to be a balance still undelivered under bills of lading held by the bank.

The Donnelly Wrecking Company has purchased the steamer Rothesay, sunk near Prescott. They will raise her and use her for excursion purposes.

The weather here is still very fine and vessels are plying between here and Oswego carrying coal and barley.

## The Northwestern Grain Movement.

Special Correspondence to the MARINE REVIEW.

DULUTH, Minn., Nov. 12.—Last week was another big one in the wheat business here. Receipts were not quite so large as for the previous week, but shipments increased 800,000 bushels and were greater than any previous week in Duluth's history. This week's receipts will be fully as great as for the best week, while the outlook is that if the elevators can handle the boats shipments will run to 4,000,000 or 5,000,000 bushels. The great advance in rates has been the principal topic in grain and marine circles. The Buffalo rate got up to 8 cents Tuesday, against 4 cents last Tuesday, and will probably go higher before this letter is printed. The movement for last week and other weeks was as follows:

	Receipts, bu.	Shipments, bu.
Last week.....	2,779,867	2,358,301
Previous week.....	2,840,409	1,795,855
Same week last year.....	624,802	644,063

There were 1,605 cars of wheat received here from Saturday to Monday morning. The largest previous record was 1,346 cars.

There was in store here Monday morning 3,870,516 bushels, an increase for the week of 357,027 bushels.

## The Iron Port of the World.

Special Correspondence to the MARINE REVIEW.

ESCANABA, Mich., Nov. 5.—There is no need of statistical data to determine that this city is the iron port of the world. Four immense docks at the harbor entrance in addition to the Schlesinger dock several miles north, and the arrival and departure of floating property aggregating 25,000 to 45,000 tons every twenty-four hours, the 23 miles of C. & N. W. Railway yards, the double tracks to the mines—all make up a convincing spectacle of Escanaba's greatness in the ore handling line. In the face of a decreased output and decreased shipments from other ports, it is expected that Escanaba will equal the shipments of last year. The management of these docks and attention paid to detail of shipments is marvelous. Eighty-five different kinds of ore are handled, and the different grades of ore are watched so carefully that mistakes made at the mine are corrected here. No. 4 dock is 2,524 feet long, is 36 feet wide and has 250 pockets. No record breaking reports of fast work are given out from the office, but in course of conversation it was learned that the Maryland had received 3,028 tons in 3 hours and 50 minutes, the Briton 2,600 tons in 3 hours and the Business got 1,397 tons in 30 minutes. Mr. H. A. Barr is superintendent of the docks, and he is so thoroughly conversant with the detail under his management that he can tell at a moment's notice how many tons of different kinds of ore there is in the pockets.

The Maryland, Capt. Yax and Engineer M. Conley, that wonderful carrier, is not slow. Running light from South Chicago to Escanaba she makes over 15 miles an hour almost every trip.

## Another Moolight Rainbow.

EDITOR MARINE REVIEW: I notice an article in your Nov. 5 issue from a captain who claims to have seen a rainbow at night and fears that in telling the story someone will think he imagined it. If he refers to the evening of Saturday Sept. 17, he is not the only one who saw the phenomenon. The steamer Livingstone was loading at the Washburn elevator and I had occasion to be aboard her at that time and saw the rainbow in the west at half past eight, standard time. The colors, two of them, could be distinctly made out. It had been raining up to 7 o'clock and the moon was just creeping out. The bow was but a short distance above the horizon and lasted about five minutes.

Washburn, Wis., Nov. 7, 1891.

ROBERT H. DAY.



## Record of Speed and Big Cargoes.

[Masters or owners are invited to report improvement on this list.]

Iron ore: Lake Michigan—Maryland, Inter-Ocean Transportation Company, of Milwaukee, 3,322 gross, or 3,737 net tons, Escanaba to South Chicago, draft 16 feet 6 inches; E. C. Pope, Eddy Bros. of Bay City, 3,239 gross, or 3,628 net tons, Escanaba to Buffalo, draft 16 feet. Lake Superior—E. C. Pope, Eddy Bros. of Bay City, 2,828 gross, or 3,167 net tons, Ashland to Lake Erie, draft 14 feet 6 inches.

Grain: E. C. Pope, Eddy Bros. of Bay City, 125,730 bushels of corn, draft 14 feet 8 inches; Western Reserve, Peter Minch, of Cleveland, 112,431 bushels of wheat, Chicago to Buffalo; W. H. Gilcher, J. C. Gilchrist, of Cleveland, 114,982 bushels of corn, Chicago to Buffalo.

Speed: Owego, Union Line, of Buffalo, Buffalo to Chicago, 889 miles, 54 hours and 16 minutes, 16.4 miles an hour; Saranac, Lehigh Valley Line, of Buffalo, Buffalo to Lime-Kilns, 240 miles, 15 hours and 10 minutes, 16 miles an hour.

## Iron Mining.

VALUE OF LEADING STOCKS.

Quoted by Chas. H. Potter & Co., No. 104 Superior St.

Stocks.	Par Value.	Bid.	Asked.
Cleveland-Cliffs Iron Company.....	\$100 00	\$.....	\$ 80 00
Champion Iron Company.....	25 00	.....	77 50
Chandler Iron Company.....	25 00	38 50	41 00
Chicago and Minnesota Ore Company.....	100 00	.....	.....
Jackson Iron Company.....	25 00	.....	110 00
Lake Superior Iron Company.....	25 00	60 00	.....
Minnesota Iron Company.....	100 00	80 00	81 00
Pittsburg Lake Angeline Iron Co.....	25 00	.....	145 00
Republic Iron Company.....	25 00	25 00	27 00
Ashland.....	25 00	.....	.....
Section Thirty-three.....	25 00	.....	.....
Brotherton.....	25 00	2 00	2 50

The market for mining stocks is dull and uninteresting in sympathy with the feeling of uncertainty in the future of the iron trade. Values of shares are unchanged and in most cases the prices quoted is nominal, as the holders of stocks feel that any change for the better in the iron market is sure to cause a better feeling among investors. Even with the present prospects for next season's business in iron ore it is felt that prices of stocks are altogether too low. Then, too some dividends are expected from the larger companies before Jan. 1. Republic and Lake Superior are referred to as companies that may be expected to make another division of earnings shortly but there is nothing official in the matter. The Lake Superior company's contracts for new boats may interfere with dividends. Many of the owners of Chandler stock think it ought to be worth \$60, instead of \$40 or \$41, the figures at which it is quoted, but there is no intimation from the management of any plans that would tend to increase confidence in the property. Joseph Sellwood, general manager of the mine, is reported to have said last winter that he could produce 500,000 tons from the Chandler during 1891 if the market would warrant such an output, and the product of the mine under an unsatisfactory market during the past season seems to verify this claim.

Shipments of the Gogebic range mines from Ashland on Nov. 4 (these mines are also shipping from Escanaba and by rail) were as follows: Ashland 239,730 tons, Aurora 81,483, Tilden, No. 2, 5,221, Tilden 23,194, Montreal, south vein 56,133, Palms 32,237, Section 33, Bessemer, 36,738, Carey 92,963, Trezona 15,759, Germania 22,382, Iron Belt 1,506, Mount Hope 100,976, Norrie 242,771, East Norrie 111,165, Comet 10,144, Federal 929, Eureka 12,752, Pabst 83,061, Ruby 913, Sunday Lake 54,419, total 1,224,531 tons. On the same date the Ludington mine had shipped from Gladstone 124,320 tons and the Hamilton 55,067 tons. The output of the Vermillion range, also computed to the 4th, inst., included 479,734 tons from the Minnesota mine, and 354,741 tons from the Chandler.

Litigation still prevents the development of the properties of the Bessemer Consolidated Iron Company and there is no telling when the difficulties growing out of the Burton failure will be settled. The foreclosure sale of the properties—Iron King, Bonnie, Blue Jacket, First National and Bennie—took place a few days ago, and they were bid in at \$50,000 by G. D. Van Dyke of Milwaukee attorney for W. W. Wright, and the new trustee for the American Loan and Trust Company.

At the Minnesota mine Capt. G. W. Wallace has succeeded Capt. James Williams as mining superintendent. Some of the ore trains have been taken off at both the Minnesota and Chand-

ler, and, although Chandler's shipments are already more than 20,000 tons ahead of last season, the output of the Vermillion range will not be great as it would have been if freight rates had held to figures that would warrant extra shipments.

The loss at the Hamilton mine through water in one of the shafts will result greatly to the disadvantage of the company. On Monday of this week the water had risen in the shaft to about 1,000 feet.

## Economical Ore Carriers.

"We have all been short in boiler power" said Mr. F. W. Wheeler of West Bay City a few days ago, in speaking of the two big steamers to be built by the Globe Iron Works Company and Chicago Ship Building Company for the Minnesota Steamship Company. These steamers as well as the Samuel Mitchell boat, another big ore carrier building by the Globe company, will have larger boilers in proportion to machinery than has been the case in the past. But the most important tendency in the bulk freight carrier is still in the direction of increased length and breadth, on account of the light draft of water and the continued reduction in carrying charges.

Without doubt these big Minnesota boats will be the most economical carriers on the lakes. Managed by a corporation controlling mines and docks and containing all of the features that go to make up the modern "flyers" in the ore trade, it is very probable that they will be capable of carrying freight at a lower cost than it is carried any place on earth. Although capable of carrying about 4,000 tons on 16 feet draft, it is proposed to retain in them, through working nine hatches, the great advantage of taking out cargo in a single day and putting it in in about three hours. That this can be done there is no doubt, as the work on other boats during the past three seasons has shown. Only Saturday last a cargo of 2,200 gross tons of ore was taken out of the steamer Corona at Ashtabula in five hours. She went to dock at 7:30 in the morning and was unloaded at 1:30 in the afternoon, one hour of this time being taken up for dinner.

## More Obstructions.

Capt. D. A. Kiah of the Vermont Central line steamer F. H. Prince, one of the largest boats navigating the Welland canal, reports another obstruction in the Pelee passage, Lake Erie, and locates it W. by N.  $\frac{1}{2}$  N. from Point Pelee light, and on a line with Point Pelee light-house and the red buoy north of Colchester. "We were bound down the lake on the evening of Nov. 8," Capt. Kiah says, "drawing 14 feet 10 inches forward and 15 feet aft when we struck very hard on some old wreck and worked over it. Our boat has a heavy wooden bottom and we were fortunate in not sustaining serious injury.

It is thought that the Prince, running close to Point Pelee light to avoid, as all deep laden vessels do, the shoal water south of the light, found a spot on the course named in Capt. Kiah's letter, over which the chart gives but  $3\frac{1}{2}$  fathoms of water. There may even be less water than is given on the chart with regard to this spot, as has been found to be the case with several other places in this vicinity. Such accidents go to show, however, the necessity of the government providing a vessel suitably equipped for locating and removing such obstructions.

In Lake Erie, due east of the center of Kelley's island, and on the course out of Huron, Capt. George W. Shepherd, in charge of the fishing tug running out of Huron, has found a rock with scant 11 feet of water over it. He is positive that the center of Kelley's island was due west of his boat when the rock was found, but is undecided about the distance, N.  $\frac{1}{4}$  W. from Huron, which he figures at 11 to 13 miles.

Light House Inspector Heyerman gives notice that the wreck of the Kasota in the Detroit river having been removed the light marking the obstruction has been discontinued.



### Ore Shipments and Lake Freights.

Shipments of ore from all Lake Superior mines during October foot up 950,929 tons and the aggregate for the season to Nov. 1 is 6,017,789 tons, against 7,300,545 tons in 1890, or a falling off of 1,282,756 tons. These figures are official. On account of the high grain rates, shipments of the present month will be very light and it is certain that the total lake movement for the season will not exceed 6,500,000 tons, while the additional rail movement will hardly bring the output of the year 1891 above 7,000,000 tons.

This reduction of full 2,000,000 tons in the ore output, as compared with 1890, is one of the favorable features of the lake trade at this time. The vessel owners could not ask for a more favorable close to the season of navigation. High grain rates are making up for the dull period of a few weeks ago and the strong closing freight market is bound to have an effect on contracts during the winter. It is many years since the ore docks have been in as good condition at the close of navigation as they are at present. Coal shipments for the season have not been up to requirements and grain will be carried over for shipment next spring. Delay on the part of the railway companies in purchasing iron is the only dragging feature in the market, and unless indications are deceiving shippers and vessel owners will not be long in settling freight matters. The highest freight rates paid up to date are 7½ cents on wheat, Duluth to Buffalo, \$1.40 on ore from both Ashland and Marquette to Ohio ports and \$1.30 on ore from Escanaba to Buffalo. The rate on coal from Ohio ports to the head of Lake Superior holds to 40 cents on account of the big fleet going that way, but 85 cents has been paid and \$1 is now asked to Milwaukee and Chicago. Portage coal has also paid \$1.

### No Monopoly in the Whaleback.

McDougall is worried over the action of other lake ship builders in preparing to build the cheaper kind of steel vessels to be known as monitors. In a lengthy editorial printed a few days ago in the Superior Leader, and evidently dictated by a representative of the barge company, some very severe language is directed to the Detroit Dry Dock Company and the Cleveland Ship Building Company, both of which concerns are known to be engaged in preparations for the building of steel ore carriers that will be so modified as to bring the cost of their construction, as far as can be learned, down to figures about equal the cost of the barges. It is this move on the part of other builders toward constructing cheaper boats where they are wanted that has called out an expression from the barge company, indicating that for the first time since a whaleback was launched on the lakes its promoters are confronted with an active move toward competition. The article in question lays great stress on the plans of the barge company for producing its own ship material at Superior direct from the ore mines controlled by stockholders in the company, and makes this feature of its future operations a basis for the broad claims contained in the following extract.

"In view of the marked success of the McDougall type of vessel, it is little wonder that the builders of the clumsy and unwieldy craft they are fast superceding should be looking around for some means of saving grace. A year or two more of active operations, such as may now be seen, at the Superior shipyards and the occupation of other shipyards on the lakes will be gone. Superior will supply all the carrying facilities the lake commerce may require, and that too with ships, the lessened cost of which will be in keeping with their greater speed and carrying capacity, both of which advantages over the old style craft will be supplemented by a corresponding economy in running expenses. The fellows who laughed at McDougall and said he was crazy but who have since discovered the method in his madness, will consult their own interests by exercising the utmost caution when they set about adopting any of his 'crazy' ideas 'with modifications.'

The barge company with almost an unlimited supply of capital has placed a fleet of whalebacks in operation on the lakes, but the absurdity of its claim to a monopoly of the trade is so plain

as to make it ridiculous when coming from a source that seems to be prompted by McDougall himself. Certainly no one informed as to the amount of tonnage controlled by the ore companies will claim that the barges, already "tramps" in the general trade—the Wisconsin central ore interests being unable to give employment to even those now in commission—can be operated to as great an advantage as the big steamers of the ore companies controlling mines and docks and in some cases the railways. But leaving this important question aside, there is no better evidence of the barge company's inability to compete with other builders for the present, at least, than the fact that in other ports around the lakes work has been started on new steamers aggregating in capacity fully 25,000 tons, while the barge company, which is known to have figured on a number of contracts, including the big Minnesota boats, must continue to build on its own account. For the present, steel boats of any kind, whether the requirements are for the most substantial construction or not, can be built cheaper in Cleveland and Detroit, than at any other place on the lakes. Big plants, experience and lowest prices on material are the causes for this condition, and the leaders in the barge company evidently understand these causes when they become alarmed at the disposition of other builders to furnish cheaper vessels where they are wanted. Development of the iron industry at the head of Lake Superior may revolutionize the business of building ships, but we doubt it. Until it does, the claim of the barge company to a monopoly of the lake trade will have little weight among those who understand the situation. The main features reducing cost in the barges, such as the absence of bulkheads and a second deck, are certainly not within the reach of patent rights, and other qualities claimed for them have not, it is evident, even at this late day, commended themselves very forcibly to the shipping companies in control of lake commerce, as their contracts are going to other builders.

### Lake Coal Movement.

Although shipments of coal to Lake Superior during October were not equal to the shipments of October, 1890, the total movement of both hard and soft coal to Lake Superior for the season to Nov. 1 is 339,333 net tons in excess of the aggregate on the corresponding date last season. The great bulk of this gain is, of course, in bituminous coal, and there is little doubt that it will all be used in handling the big grain crop before navigation opens next spring. Shipments of soft coal at present would certainly be heavier if the coal could be had. The figures showing this gain in shipments are secured from the monthly reports of Gen. Poe, in charge of the Sanlt canal, and are as follows:

	1891.	1890.
April .....	10,919	.....
May .....	404,698	.....
June .....	390,674	*684,739
July .....	436,254	342,854
August .....	428,842	362,768
September .....	351,517	285,407
October .....	294,831	302,644

\*Includes April and May.

2,317,735 1,978,402

Capt. James F. Trowell, who prepares coal statistics for the Milwaukee dealers and is otherwise connected with shipping matters, sends us the following statement of receipts at that port. Total receipts of bituminous to Nov. 1, 227,129 net tons; anthracite to Nov. 1, 658,786 tons; bituminous and anthracite to Nov. 1, 884,915 tons; bituminous during October, 19,987 tons; anthracite during October 101,817 tons.

There is little doubt that the shipments of bituminous coal this season would have been at least 100,000 tons more than they are at present, if labor troubles in the Pittsburgh district had not acted against the plans of lake shippers for a very large business. Shippers of Pittsburgh coal are now buyers in the Hocking district and they expect very little coal from the producers of their own district, as some of the miners are still idle, threatening another strike, and the supply is barely sufficient for consumption in and around Pittsburgh. These conditions warrant the general belief that still another spring will see a shortage in the northwest, and the demand for coal carriers will also add to the volume of lake business next season.



**Samuel Augustus Fuller.**

We are indebted to the Iron Trade Review for the accompanying excellent portrait of S. A. Fuller, late general manager and treasurer of the Union Rolling Mill Company of Cleveland, whose death was announced a few days ago. Mr. Fuller had been connected with the iron business of Cleveland since 1869. He was largely interested in Lake Superior mining properties and was among the most prominent citizens in Cleveland.

**McDougall's Patent Claims.**

Considerable interest is attached at this time to the patent claims of Capt. McDougall on the whaleback barges, taken over by the American Steel Barge Company, on account of the plans of other builders who have begun the construction of boats to be

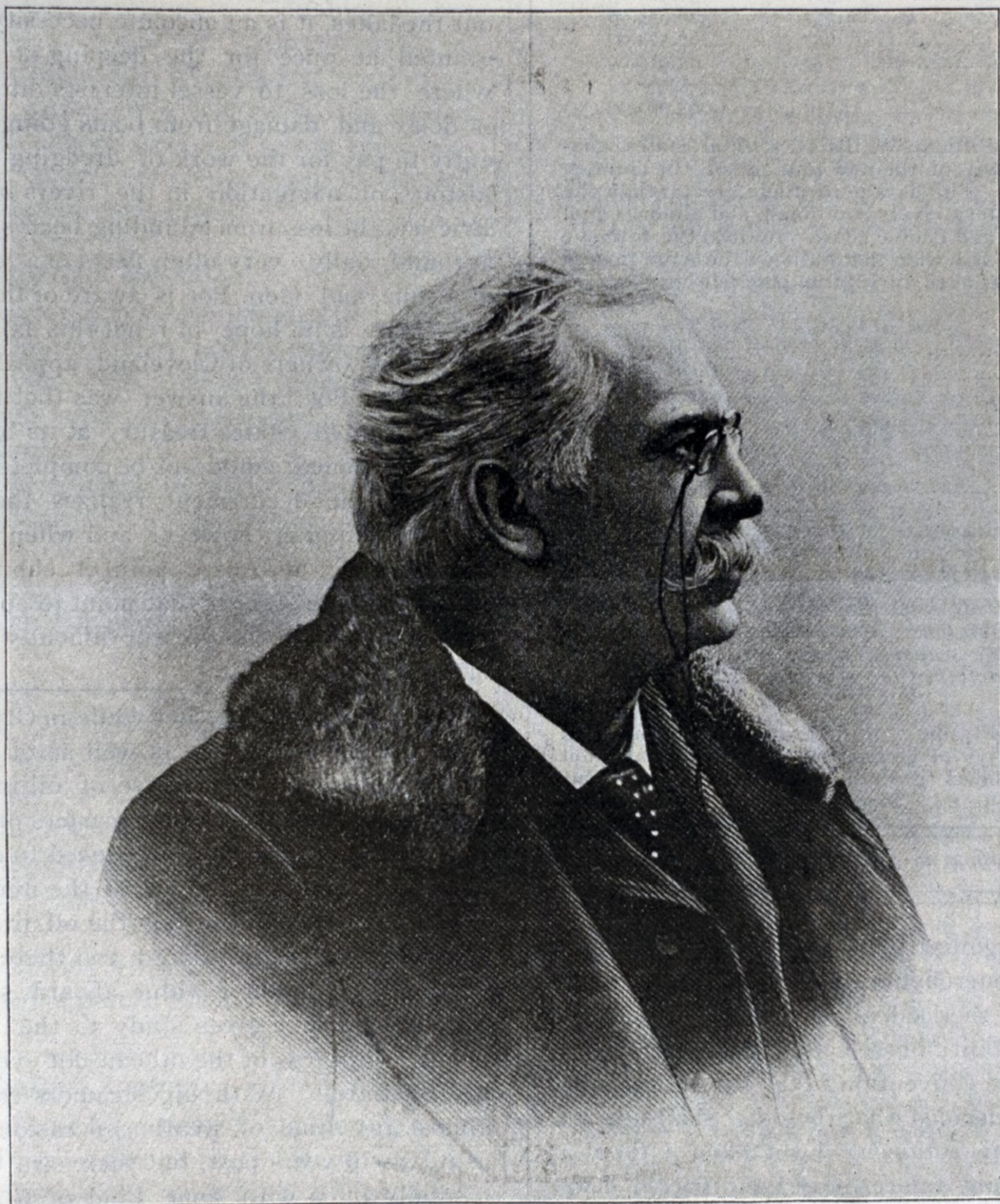
the water mark or wales, shall uniformly taper to a point above its bottom about two-thirds the depth of the boat.

Patent No. 289,889, taken out in 1882, claims:

1—A tow boat having a flat bottom and vertical sides, except at the ends, a semi-cylindrical upper portion throughout its entire length, and having the bottom and sides toward the ends tapering in outwardly curved lines to the extremities, so as to form a precisely similar conical bow and stern.

2—A tow boat having turrets rigidly secured to the same, each turret supporting a separate open working deck, upon which is placed and worked the steering and hauling-in gear.

3—In a tow boat in combination with the turrets, and communicating with them, a water-tight cabin and forecastle arranged on the upper part of the hull and communicating with each



SAMUEL AUGUSTUS FULLER.

known as lake monitors. Legal talent of a high class was undoubtedly consulted in the matter of patents by Messrs. Rockefeller, Hoyt, Colby and other New York capitalists who have put a very large amount of money into the barges, before the West Superior enterprise was undertaken, and this fact tends to add interest to McDougall's claims, a synopsis of which is presented here. Patent No. 241,813, secured in 1881, claims:

1—A freight vessel so constructed and so arranged in its outline that the body of the hull has parallel sides for a considerable portion of its length between points where it tapers to form bow and stern, which portion shall be semi cylindrical above and ellipsoidal below the water mark or wales.

2—A freight vessel so constructed and arranged in its outline that its bow and stern, formed by the continuation of its sides, which are parallel for some considerable portion of their length, and of semi-cylindrical shape above and ellipsoidal below

other by means of a passage way in the upper central portion of the hull, and separated from the cargo space.

4—The skeleton of a tow-boat consisting of numerous rib-frames precisely alike in size and form, each with substantially flat lower parts and vertical sides and rounded tops throughout the body of the hull, bow and stern frames, nearly annular and precisely alike in size and form at equal distances from the extreme ends, and cross-beams and stanchions secured together at their points of contact, whereby the keel, keelsons and stem and stern-post are dispensed with.

Anxious passenger: (On getting into reporter's boat to catch a steamer at Port Huron). "Now, in case this boat upsets, which shore shall I swim for?"

Experienced and hard-hearted reporter: "The golden shore."



# MARINE REVIEW.

DEVOTED TO THE LAKE MARINE AND KINDRED INTERESTS.

JOHN M. MULROONEY, . . . . . } PROPRIETORS.  
F. M. BARTON, . . . . . }

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The books of the United States treasury department contain the names of 3,510 vessels, measuring 1,063,063.90 tons in the lake trade. In classification of this fleet the lakes have more steamboats of 1,000 to 2,500 tons than the combined ownership of this class of vessels in all other sections of the country. The classification is as follows:

Class.	Number.	Tonnage.
Steam vessels .....	1,527	652,922.25
Sailing vessels.....	1,272	328,655.96
Canal boats.....	657	67,574.90
Barges.....	54	13,910.09
Total.....	3,510	1,063,063.90

According to the report of William W. Bates, United States commissioner of navigation, 46 per cent. of the new tonnage of the country was built on the lakes during 1889. This is a percentage greater than the work of the Atlantic coast and western rivers combined, and almost equal to the whole work on the Atlantic and Pacific coast. In 1890 the tonnage built on the lakes is but very little less than that built on the Atlantic and Gulf coasts. Tonnage built on the lakes during the past five years was as follows:

	No. of boats.	Net Tonnage.
1886.....	85	20,400.54
1887.....	152	56,488.32
1888.....	222	101,102.87
1889.....	225	107,080.30
1890.....	218	108,515.00
Total.....	902	393,597.03

Annual tonnage entries and clearances of the great seaports of the world, for 1889: New York, 11,051,236 tons; all seaports in the United States, 26,983,315 tons; Liverpool, 14,175,200 tons; London, 19,245,417 tons.

*Tonnage passing through Detroit river during 234 days of navigation in 1889, amounted to 36,203,606 tons. Ten million tons more than the entries and clearances of all the seaports in the United States, and three million tons more than the combined foreign and coastwise shipping of Liverpool and London.*

St. Mary's Falls and Suez canal traffic: Number of boats through St. Mary's Falls canal in 1890, 234 days of navigation, 10,557; tonnage, net registered, 8,454,435. Number of boats through Suez canal during 1890, full year, 3,389; tonnage, net registered, 6,890,014.

*Entered at Cleveland Post Office as Second-class Mail Matter.*

DETROIT'S commercial organizations, the board of trade and associations of vessel owners, merchants and manufacturers, have taken upon themselves, under the leadership of Congressman J. Logan Chipman, the responsibility of selecting Washington, D. C., as the place for holding the convention in the interest of lake improvements and they have decided that the date shall not be later than Dec. 15, 1891. This action has been taken without a general expression from shipping interests in the different lake cities as to time or place for holding the convention, but it can not be said that Detroit did not offer sufficient opportunity for a statement of preferences in this regard. Commercial organizations in all parts of the lakes were asked to not only give an opinion as to the advisability of holding such a convention, but they were also asked to suggest time and place for the gathering. All endorsed the convention but there was no rivalry in the matter of selecting a city for the meeting, as the object in view insures harmony and united action. The REVIEW favored Chicago, Minneapolis or St. Paul, for the reason that it was thought that a convention in any of these cities would attract attention from northwestern congressmen and business organizations whose support would otherwise be limited. Cleveland and Chicago vessel owners were of the same opinion, but Chicago made only a half-hearted bid for the convention. If, then, Detroit is not asked to reconsider its action in the matter, it behooves all interests to immediately begin preparations for an immense as-

semblage of delegates in Washington. The plan of holding a convention at the capital just following the opening of Congress may prove a wise one, and it is to be hoped that shipping associations in all parts of the lakes, and especially the Lake Carriers' Association and Cleveland Vessel Owners' Association, will do all in their power to assist Detroit in the movement. The resolution calling for the convention asks for consideration of the interests of lake navigation, including the construction of channels where needed to insure not less than 20 or 21 feet of water in depth, the building of light-houses, the improvement of important harbors and the question of the construction of a channel connecting the lakes with tide water of a sufficient depth and width to float our largest vessels.

WHATEVER is done in the next Congress with the plans of lake and shipping interests for a 20 or 21-foot channel throughout the lakes, it is an absolute necessity that an appropriation be granted at once for the deepening of the Grosse point channel, where the loss to vessel interests during the past three months in delay and damage from boats going aground has been sufficiently to pay for the work of dredging ten times over. Never in history of navigation in the rivers between Lakes Huron and Erie has the loss from stranding been so great. Boats have been aground daily, very often fleets of a dozen or more big carriers at a time, and Gen. Poe is aware of the gravity of the situation, but there is no hope of relief this fall. A few days ago when the vessel owners of Cleveland appealed to the secretary of war and Gen. Poe, the answer was that if the department had the whole United States treasury at its back dredging, sufficient to be of any benefit could not be completed before the close of navigation. The department realizes the importance of this great loss to shipping, however, and when an appropriation is made for dredging at Grosse point it should be sufficiently large to deepen the channel at that point to 20 or 21 feet, with a view to fully overcoming the present difficulty and meeting the demands of the future.

It is unfortunate that while in Great Britain and other leading maritime countries, as well as on our own seaboard, great attention is given to the use of oil in assisting vessels to withstand heavy weather, vessel masters on the lakes can not, excepting in a few instances, be induced to even give attention to the question of merit in the use of the fluid. In England improved appliances for distributing the oil from the bows of vessels are constantly being introduced, and there is no longer any question whatever as to their value aboard ship. On the lakes many owners who have given study to the subject and are convinced of the usefulness of the oil can not even induce their captains to give it a trial. With big steamers capable of leaving port in almost any kind of weather, occasion for the oil is not so great as it was in years past, but there are times, nevertheless, when a supply of it with some kind of a distributing device would result in a saving of life and property.

SECRETARY TRACY of the navy says: "The present revenue marine, composed of some two hundred officers, should be taken bodily into the naval service and organized as a separate corps, to be known as the revenue marine corps of the navy, subject in all respects to the laws and entitled to all the privileges which attach to the naval commission." Marine interest in all parts of the country agree with the secretary in this matter. Not only would the change result in improvement in the revenue marine service and a saving to the government, but the treasury department would be relieved of one of the many branches that make it too cumbersome in its operations.

The MARINE REVIEW and the MARINE ENGINEER, London, one year for \$4. Write the MARINE REVIEW.

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### Old Time Recollections.

"I remember," said a white bearded, ruddy-faced captain of a Buffalo line boat, "when there were no tugs on the lakes. The first tug that I saw in Buffalo was brought up on a canal boat and unloaded by derrick. She was small, but wonderful. At that time, pretty nearly forty years ago, a man kept several yoke of oxen at the rapids in the St. Clair river to tow schooners through. He made money at \$10 a tow. Then the mail was carried by the schooner C. P. Williams from Buffalo to Chicago. Before that tug came to Buffalo schooners sailed into the creek and dropped anchor. If they had a good breeze they often dragged anchor as far up as Main street."

"It was not so many years ago," said another captian, "when grain was 16 cents from Detroit to Oswego, and I made a round trip every ten days. One fall the grain rate was 33 cents, about as much as the farmer got for raising it. The highest ore rate I ever got was \$3.50 from Escanaba, but I know of men who got \$6.75 for single cargoes late in the fall. The biggest total freight I ever knew of was \$11,000, earned by a boat called the United at the end of the season. The largest freight of recent times was collected the first round trip of the Hiawatha, when it was said she made \$11,000 with coal up and flour down."

### New Shipwreck Signals.

The United States life-saving service has adopted the signals recommended by the late international marine conference for saving life from wrecked vessels. The different keepers of stations have been furnished with copies of instructions regarding the signals, which are as follows:

1. Upon the discovery of a wreck by night, the life-saving force will burn a red pyrotechnic light or red rocket to signify, "You are seen; assistance will be given as soon as possible."
2. A red flag waved on shore by day, or a red light, red rocket or red roman candle displayed by night will signify, "Haul away."
3. A white flag waved on shore by day, or a white light swung slowly back and forth, or a white rocket or white roman candle fired by night will signify, "Slack away."
4. Two flags, a white and a red, waved at the same time on shore by day, or two lights, a white and a red, slowly swung at the same time, or a blue pyrotechnic light burned by night will signify, "Do not attempt to land in your own boats; it is impossible."
5. A man on shore beckoning by day, or two torches burning near together by night, will signify, "This is the best place to land."

### A Sailor's Letter.

The following letter, written by a sailer to his former captain, is nailed to the wall in the office of A. T. Henny a New York ship broker. It is a masterpiece of its kind, and between the lines can be seen the vicissitudes in the life of an able seaman:

on the Bark firefly. honord sur Kornel Nox i send you by this male a fu sheets of riting wich belongs to you its no use to me & i hav Been a long ways sense i seen you i shipped to Halifax & there had a helova time going to Bristol england & then i came to Liverpool & now i am in a Bark with a generl cargo & ful of rats & the captain fulernagoos awl the time and swears most awful the Feed is no good & i am sick of having my sistem jamd ful of Beens awl the time. wish i had sum of the grub we had on the Saint Lawrence will you ever furgit the bloobery py honord sur wich it was in the tale of the cote you give me in behine the lining i riped it yesterday i found the papers thet are sum you are going to put in a Book i think i rite this to you with my respec & the Captain will put youre adres on this & male it for me at Naples wh.r weere going. No more at present youre obedent respectfully, JOHN MADDOX, able seamam.

That was a devil of a trip we had on the Champlan but if ever you cruse again i would like to work for you i never will forgit that py.—Exchange.

### Great Ocean Flyers.

With the close of the Atlantic racing season the record of former years has again been lowered. The following tabulated statement shows records of the leading passenger steamers of the world:

#### QUEENSTOWN TO NEW YORK.

Name.	Time.			Distance Run.	Speed per Hour.	Date.
	D.	H.	M.	Knots.	Knots.	
Teutonic.....	5	16	31	2778	20.35	Aug. 1891.
Majestic.....	5	18	8	2777	20.10	Aug. 1891.
City of Paris.....	5	19	18	2788	20.01	Aug. 1889.
Etruria.....	6	1	47	2854	19.58	June, 1888.
City of New York...	6	2	10	2886	19.74	March, 1891.

#### NEW YORK TO QUEENSTOWN.

Teutonic.....	5	21	...	2791	19.80	Sept. 1891.
City of New York...	5	22	50	2777	19.44	Sept. 1891.
City of Paris.....	6	0	29	2894	20.03	May, 1889.
Majestic.....	6	2	0	2882	19.74	July, 1891.
Etruria.....	6	5	19	2911	19.49	Feb. 1887.

### In General.

In making a run of a single mile in two minutes and one-fifth of a second the steam yacht Norwood of New York has beaten the Vamoose's mile record of 2 minutes and 30 seconds. Against wind and tide the Norwood repeated the mile in two minutes and three-fifths of a second.

The McDougall whaleback Wetmore, bound from New York to Everett, the new town of the barge company on Puget sound, arrived at Valparaiso, Chili, on the 7th inst. A party of stockholders in the barge company will go to the Pacific coast shortly, to meet the boat on arrival. She is expected to arrive on the sound about Dec. 10.

J. M. Goodwin, who was known to lake vessel owners and shippers as one of the leading advocates of the proposed canal between Lake Erie and the Ohio river, and who was a member of the commission appointed by the governor of Pennsylvania to report on the feasibility of the scheme, died at his home in Sharpsville, Pa., a few days ago.

On Jan. 1, 1891. Germany's merchant seagoing vessels of more than eighteen tons register numbered 3,653, with a total net tonnage of 1,433,413, and a crew of 40,449 men. Of this total 2,757 were sailing vessels with a registered tonnage of 709,761 and a crew of 18,132 men. The fleet of steamers was 896, with a registered tonnage of 723,652, and a crew of 23,317 men.

"Engineers' Sketch Book of Mechanical Movements" by Thomas Walter Barber, is just what every engineer wants and the price, \$3, is within the reach of all. It contains nearly 2,000 drawings with explanatory notes. The subjects covered range from anchoring of vessels to pressure regulators. It is published by E. & F. N. Spon, 12 Cortlandt st., New York, N. Y.

A casting weighing 330,000 pounds, or about 150 tons was poured on the 13th inst. at the Bethlehem Iron Company's works, Bethlehem, Pa., in the presence of Secretary Tracy of the navy. The casting is to be a part of a machine which will be used for the manufacture of war material for the United States and is the largest ever poured in this country and probably in the world.

Pittsburgh newspapers say that the management of the Inman line, ocean steamers, is considering the advisability of adopting petroleum for fuel. The Standard Oil Company is largely interested in the Inman Line and it is proposed to use Lima crude, pumping the fluid from the Ohio field to the seaboard. The extent to which Lima oil is now used in manufacturing establishments throughout Ohio and adjoining states is wonderful, new pipe lines being extended daily in all directions. The Standard company is well equipped with pipe lines to New York, but whether the oil can be applied economically to steamers carrying big tanks and heavy supplies is, of course, a great question.

J. Pierpont Morgan, the millionaire Wall street banker, has just received from Neafie & Levy, Philadelpha builders, the ocean-going yacht New Corsair for which he contracted some time ago. The boat is 238 feet over all, 204 feet on the water line, 27 feet 3 inches beam and about 13 feet 4 inches draught. The yacht has forward, middle and after deck houses, the lower halves of which are of steel, covered with lead and paralleled and butted to the main deck. The engines are of the triple expansion, surface condensing kind of 2,000 horse power, and will insure a speed of 17 knots an hour under forced draught with 175 pounds of steam. No definite statement has been made as to the cost of the boat, but it is thought that \$300,000 is about the figure.



### Moving Upon Congress.

The Cleveland Vessel Owners' Association has already begun work preparatory to the opening of Congress next month, and when that body assembles an immense petition, covering special aids to navigation in all parts of the lakes, will be sent on to Washington, signed by hundreds of vessel owners and shippers. The petition asks for all of the lights, fog signals, light-ships, etc. included in the list published in the REVIEW a short time ago, together with additions made after correspondence and consultations with leading vessel masters and government engineers in charge of the different lake districts. Information has also been sought from officers of the light-house board regarding the proposed vessel for locating and removing sunken wrecks and obstructions of all kinds in different parts of the lakes, and a request is made for an appropriation to construct and maintain such a vessel. It is not the intention of the petitioners to deal with big projects like the proposed 20-foot channel throughout all of the connecting waterways of the lakes, as the aids asked for are of urgent necessity and little cost, but it is proposed that, pending action on the deep channel question, steps be taken immediately to dredge out Grosse point, so as to have it correspond with the proposed general improvement. A strong plea is also made for life saving stations at Whitefish point, Lake Superior; Sand Hills, about 12 miles west of Eagle river, Lake Superior; Bark point, Lake Superior; Point au Barques, Lake Michigan, and Plum island, Lake Michigan.

Copies of the petition will be sent to all of the leading lake cities, and commercial bodies in different places will also be asked to take action upon its contents.

### Chicago Bridge Obstructions.

If the war department perseveres in the disposition shown at present to hasten a settlement of the question of bridge obstructions in the Chicago river, there can be no cause for complaint. Immediately upon receipt of protests from the Lake Line Agents' Association of Chicago, an order was sent to Capt. Marshall, engineer officer of the department in that city, to instruct the United States district attorney to institute proceedings with a view to recovering from the city the fine of \$5,000 for allowing the Canal street bridge to remain in position one month after the time for its removal had expired. Capt. Marshall was also instructed to investigate the complaint against the railroad bridge of the Pittsburg, Fort Wayne & Chicago Railroad Company, near Nineteenth street.

### Around the Lakes.

Masters of vessels going to Racine would do well to not load deeper than 12 feet.

Lehigh Valley management is considering the advisability of building in Chicago a warehouse to cost \$100,000.

Capt. Alexander Ferguson of Sarnia, 61 years of age, fell into the hold of his boat at Windsor a few days ago and was killed.

John Whitney, chief engineer of the Lehigh Valley Line, Buffalo, has resigned to enter the employ of an electric light company at Chicago.

Vessels taking coal to Sheboygan, Wis., also suffer delay and expense on account of the shallow condition of the harbor. The David Wallace with 1,500 tons of coal was on the bottom there Monday.

George Thompson, mate of the Osceola, succeeds Capt. O'Brien as master of the Osceola. Capt. John Simes of the steambarge Nelson Mills succeeds Capt. Christie as master of the H. D. Coffinberry.

The Peshtigo fleet of barges have gone into winter quarters at Chicago. Their steamer, the Boscobel, made fifty trips between Chicago and Peshtigo the fleet carrying 50,000,000 feet of lumber during the season.

A libel has been filed in the United States district court at Detroit, by Henry C. Wisner, proctor for Byron J. Whitaker, against the propeller Japan. The Japan is charged with negligently

colliding with the Byron J. Whitaker, some time ago, a short distance out from Sand beach, Lake Huron. Mr. Whitaker asks \$8,000 damages. Another libel was filed against the steamer Iron Chief for a collision last summer, in which the owners of the damaged vessel ask for \$7,000 damages.

It is probable that the death of Diver Oliver Pelkey, who was drowned off Alpena last week while trying to explore the wreck of the steamer Pewabic, will cause C. A. Coon and others of Superior to give up their plans for securing the boat's cargo. The diver had gone down 128 feet and signaled that he had found the wreck, before the accident to the diving suit occurred, and from this it would seem that Pelkey's invention contains merits for deep water diving. He lost his life, however, and at the best there could not be great profit in raising the few hundred tons of copper contained in the wreck of the Pewabic. The story of gold in her lockers is all nonsense.

The announcement is made in business circles in Chicago that Capt. J. W. Shea, has been appointed general manager and treasurer of the Wetmore & Pride Manufacturing Company, of Chicago, which information will be gratifying to the many friends of Capt. Shea. J. W. Shea has been on the Mississippi river from boyhood, most of the time in the capacity of engineer, where he held a position in the front rank, having however been in command of steam boats during the past decade. Capt. Shea was one of the ten men who met in Chicago in 1875, and formed the National Association of Marine Engineers, at which meeting he was elected one of the national vice presidents. Returning to St. Louis he instituted a subordinate association there, over which he presided for two years. Subsequently, in 1886, he was again returned as a representative of the national association which met at Buffalo. Capt. Shea retains his membership in the association and takes the same interest in its growth and prosperity that he did when he was first identified with it.

### Cleveland Matters.

Thomas E. Gill, whose death was announced a few days ago, had been connected with the marine insurance business of Cleveland, in the old Commercial and Mercantile companies for twenty-five years. He was forty-five years of age.

The Veteran Seamen's Benevolent Association, an organization which proposes to secure through Congress, if possible, the establishment of a home for aged and infirm seamen, will give a ball on the 30th inst. The object is to secure funds to assist in urging upon Congress the need of such an institution.

The steamer C. B. Lockwood has broken the speed record for a wooden boat. She left the Sault Nov. 9 at 6 a. m., arriving at Duluth 397 miles on the 10th, at noon—30 hours, or 13½ miles an hour. She had 1,650 tons of coal on board. It was thought by some that the Lockwood would not show speed on account of her extreme breadth of beam—45 feet—but she has proved a fast wooden boat.

The steamer for carrying pig iron and coal, which the Detroit Dry Dock Company will build for the Cleveland-Cliffs Mining Company of Cleveland will be 225 feet keel, 35 feet beam and 17½ feet deep with a single deck. The engines will be triple expansion, 19, 30 and 52 inches, with 40 inches stroke and the boilers will be 11x11 feet. The contract price is \$117,500 and the boat is to be delivered next spring.

The weather bureau is making inquiry as to the advisability of combining the cautionary and storm signals as one signal. Sgt. Stockman in charge of the Cleveland office has sought opinions from vessel men, and finds that they are decidedly opposed to such a change. Information regarding direction of the wind is of the greatest importance in lake navigation, and the present system of signals covering force as well as direction is not considered complicated.

### Wrecks and Heavy Losses.

The underwriters have given up the schooner L. C. Butts with her cargo of 1,200 tons of coal as a total loss. Efforts to release her from Washington island, where she stranded on the first of the month, have proved fruitless. She was insured for \$10,000. The scow Forester, stranded on Pilot island, is also a total wreck. She was a small craft and had been in service for more than twenty years.

The steamer J. S. Ruby, owned by Ruby & Flumer of Mt. Clemens and valued at \$8,000 burned near Stag island, St. Clair river, Tuesday. She was fully insured.



## Removal of Buoys—Other Notices.

Commanders Nicoll Ludlow, Edwin T. Woodward and O. F. Heyerman, in charge, respectively, of the Ninth, Tenth and Eleventh light-house districts, covering the entire chain of lakes, give notice that the work of replacing all iron buoys with spars painted the same colors will begin Nov. 10. The light vessels at Simmon's Reef, White shoal and Gray's reef, will be continued at their stations as late as it is prudent to do so, but not later, under any circumstances, than Nov. 25. Buoys in Niagara river and the harbor of Buffalo, will be left in position as long as possible, and on their removal no small buoys will be left in these localities.

Commander Ludlow has been marking the shoals in the vicinity of Squaw and Garden islands, Lake Michigan, but as yet the spot some distance north of Squaw island shoal, on which the steamer Roumania struck a short time ago, has not been found. A black spar buoy (marker) has, however, been placed in 22 feet of water, on the north end of the Squaw island shoal, western edge of Whiskey island, slightly open to the west of Squaw; northwest end of Squaw island, S. S. W.  $\frac{1}{2}$  W., distant  $2\frac{1}{8}$  miles; east tangent of Garden island, S. E.  $\frac{1}{2}$  E. There is a shoal spot with 15 feet on it less than half a mile to the southward of this buoy.

A spar buoy, (marker) red and black horizontal stripes, has been placed on what is known on the chart as the 18-foot spot, N. E. by N.,  $2\frac{3}{4}$  miles from the northwest end of Garden island. There is but 15 feet of water where the buoy is placed. Regular spar buoys will replace the markers next spring.

A telegram from Capt. F. B. Hackett of Amherstburg, Wednesday, said that his contract from the Dominion government for the removal of the wrecked barge Birkhead is completed and the channel at the Lime-Kilns' crossing is clear.

Ship-owners and captains will be interested to learn that at the Detroit Boat Works, Detroit, Mich., yawls of all sizes, from 14 to 22 feet in length, are constantly kept in stock and delivered to vessels while passing through the river, or at their dock, day or night.

## Sault Canal Tonnage during October.

A feature of the Sault canal traffic during October is the great falling off in iron ore shipments. The total freight movement during October was 1,152,611 net tons, against 1,196,108 net tons in 1890. The tonnage for October would certainly have greatly exceeded that of the corresponding month in 1890 if it were not for the sinking of the steamer Susan E. Peck, through which Lake Superior traffic was stopped for several days. The general movement of freight through the canal during the month was as follows:

Description.	East-bound	West-bound.
Coal.....		294,831 tons.
Flour.....	543,634 bbls.	350 bbls.
Grain.....		42,500 bu.
Corn.....	11,600 bu.	
Wheat.....	7,563,586 bu.	
Building stone.....	5,439 tons.	
Copper.....	9,698 tons.	
Manufactured iron.....		7,447 tons.
Iron, ore.....	382,949 tons.	
Iron, pig.....	8,098 tons.	
Salt.....		53,548 bbls.
Lumber.....	51,505 M feet.	
Unclassified freight.....	11,748 tons.	52,635 tons.
Passengers.....	565	595

The great bulk of the freight movement is represented in grain. Iron ore shipments through the canal are 200,367 net tons less than during October 1890 and 238,367 net tons less than during September.

CHICAGO AND RETURN, \$6.00.—Patriarchs Militant, I. O. O. F., Cleveland Canton, No. 33, will run an excursion to Chicago via the Nickel Plate, Monday, Nov. 16. Train leaves 6:30 a. m., giving seven days to visit the city of the World's Fair. Nickel Plate excursion to Chicago, Nov. 16. Tickets good seven days. \$6.00 round trip.

**TO SHIP-BUILDERS.**—OFFICE OF THE Light-House Board, Washington, D. C., November 2, 1891. Proposals will be received at this office until 2 o'clock P. M., of Tuesday, the 24th day of November, 1891, for furnishing the materials and labor of all kinds necessary to construct and deliver the United States light-house tender MAPLE. Plans, specifications, forms of proposal, and other information may be obtained on application to this office. The right is reserved to reject any or all bids, and to waive any defects. JAMES A. GREER, Commodore, U. S. Navy, Chairman.

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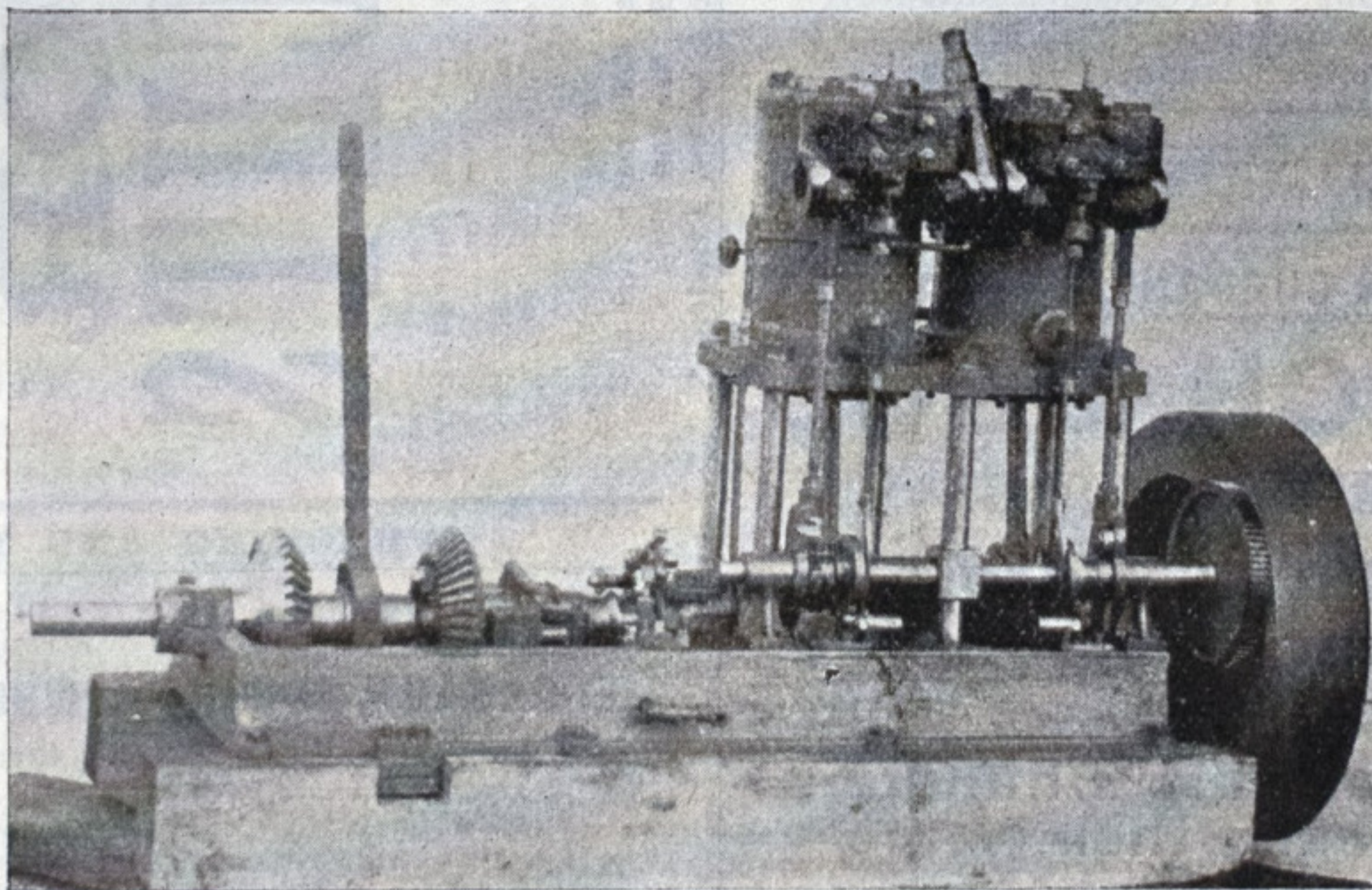
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1	350	6 in.	4 in.	1ft 9in x 2ft 0in	\$200 00	\$275 00	
2	320	9 in.	6 in.	2ft 6in x 2ft 6in	275 00	300 00	
4	320	12 in.	6 in.	2ft 9in x 2ft 9in	380 00	410 00	
6	320	15 in.	8 in.	2ft 6in x 3ft 6in	485 00	520 00	

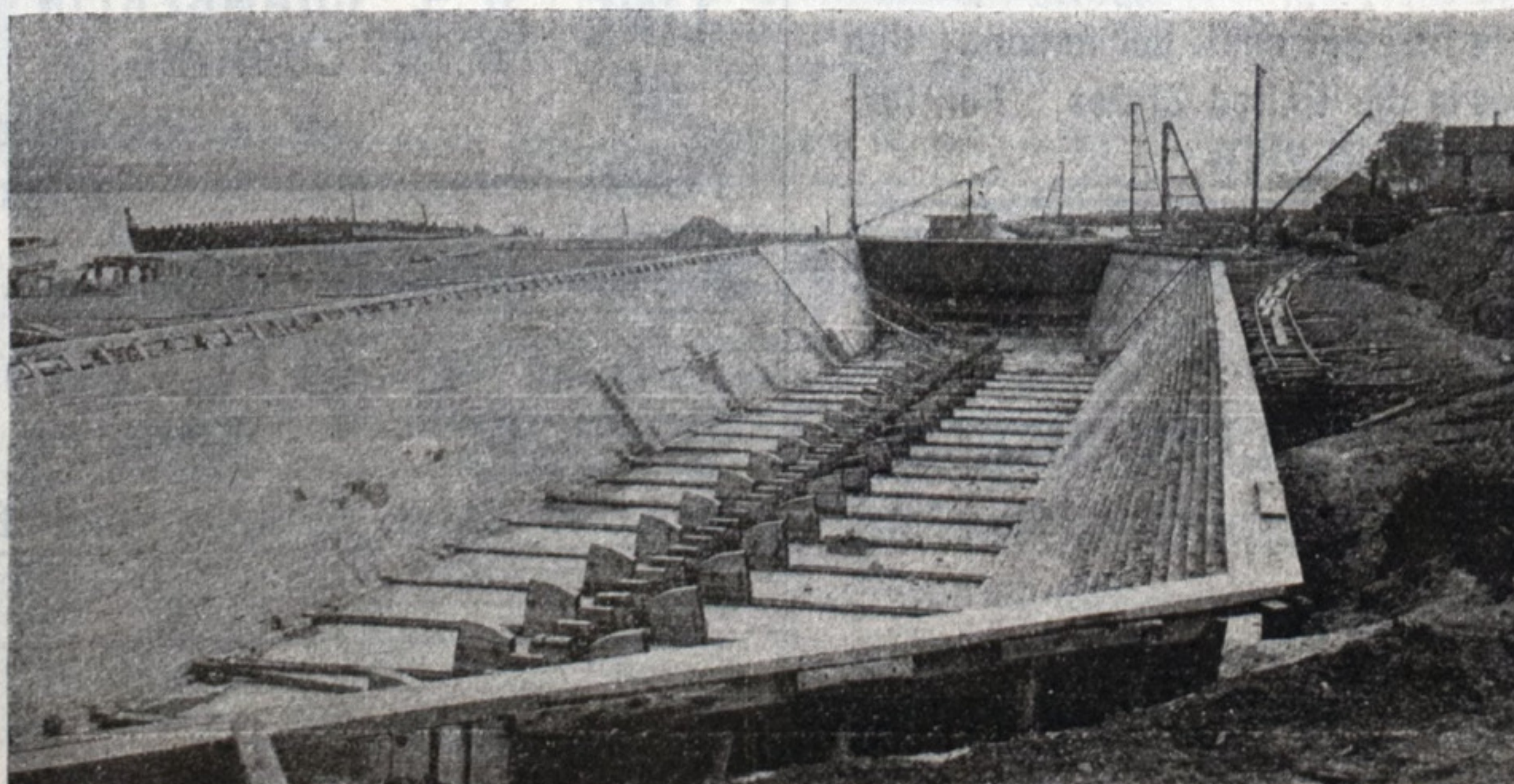
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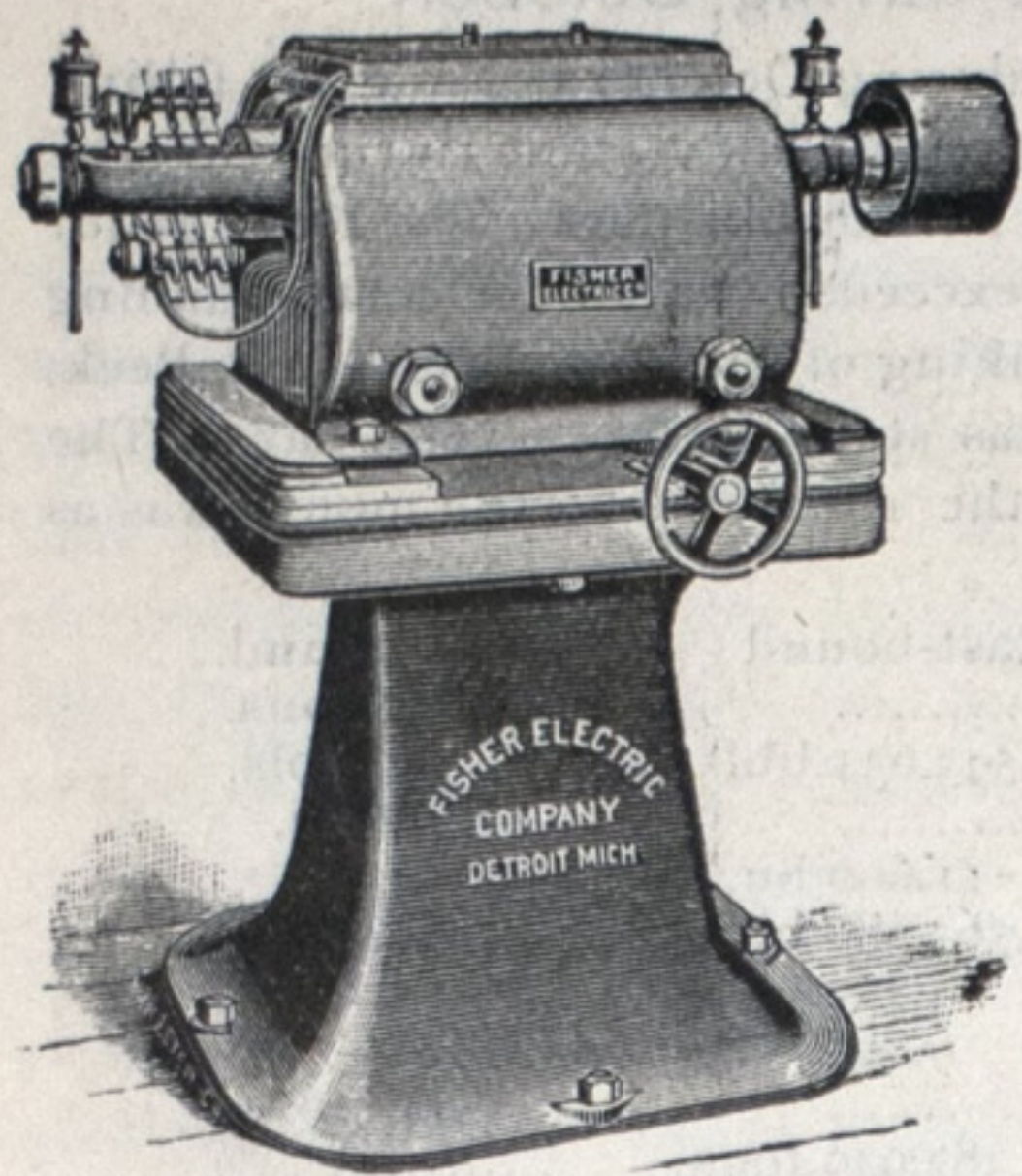
Length: 400 feet.

Width: { on top 95 feet.  
          bottom 55 "  
          at gate 62 "

Depth: { to floor 20 feet.  
          to sill 18 "  
          on blocks 16 "

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- 72—Good second-hand 60-foot fish tug wanted.
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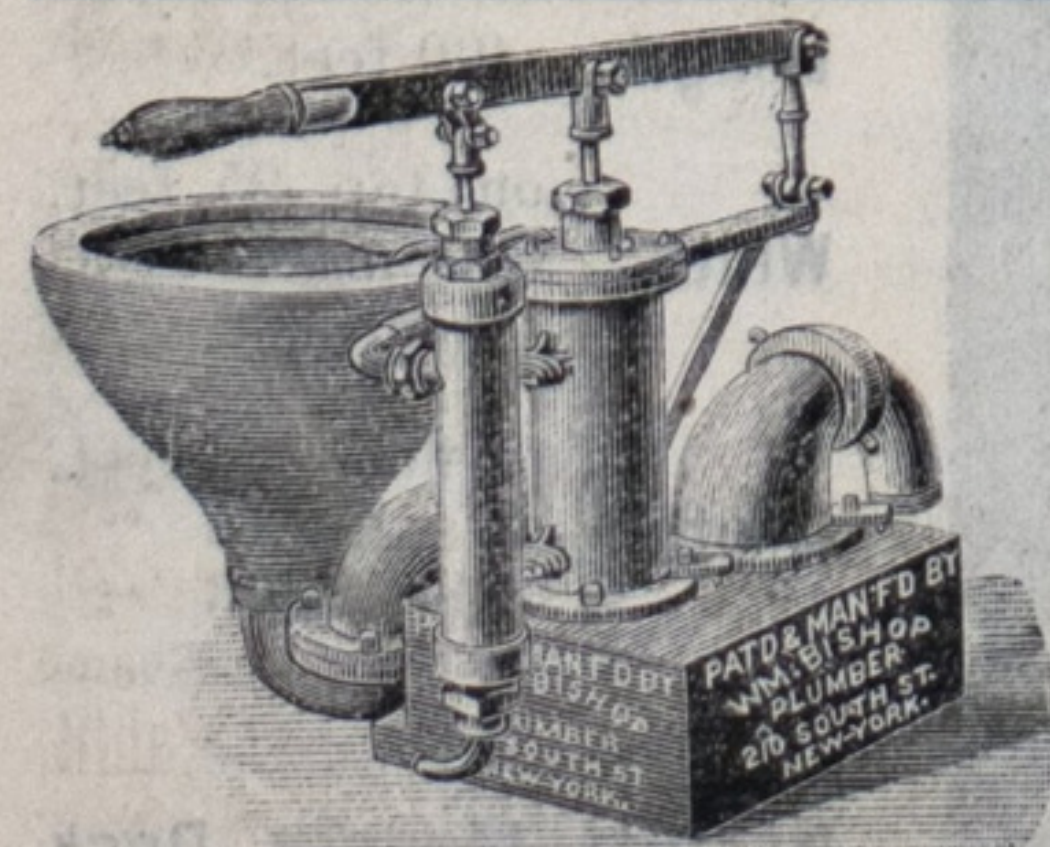
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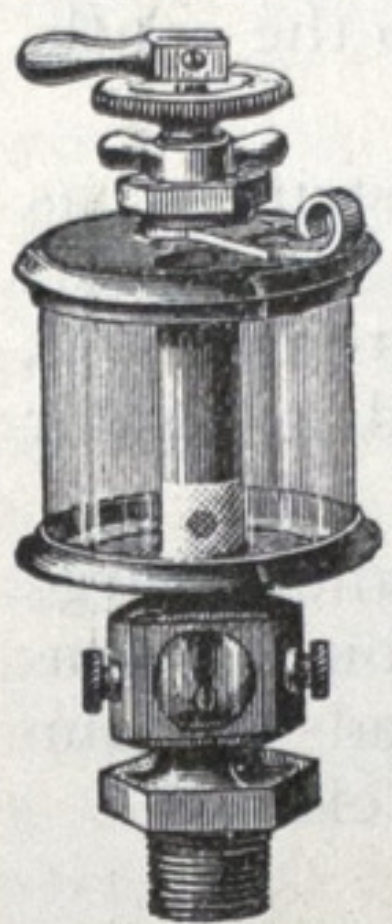
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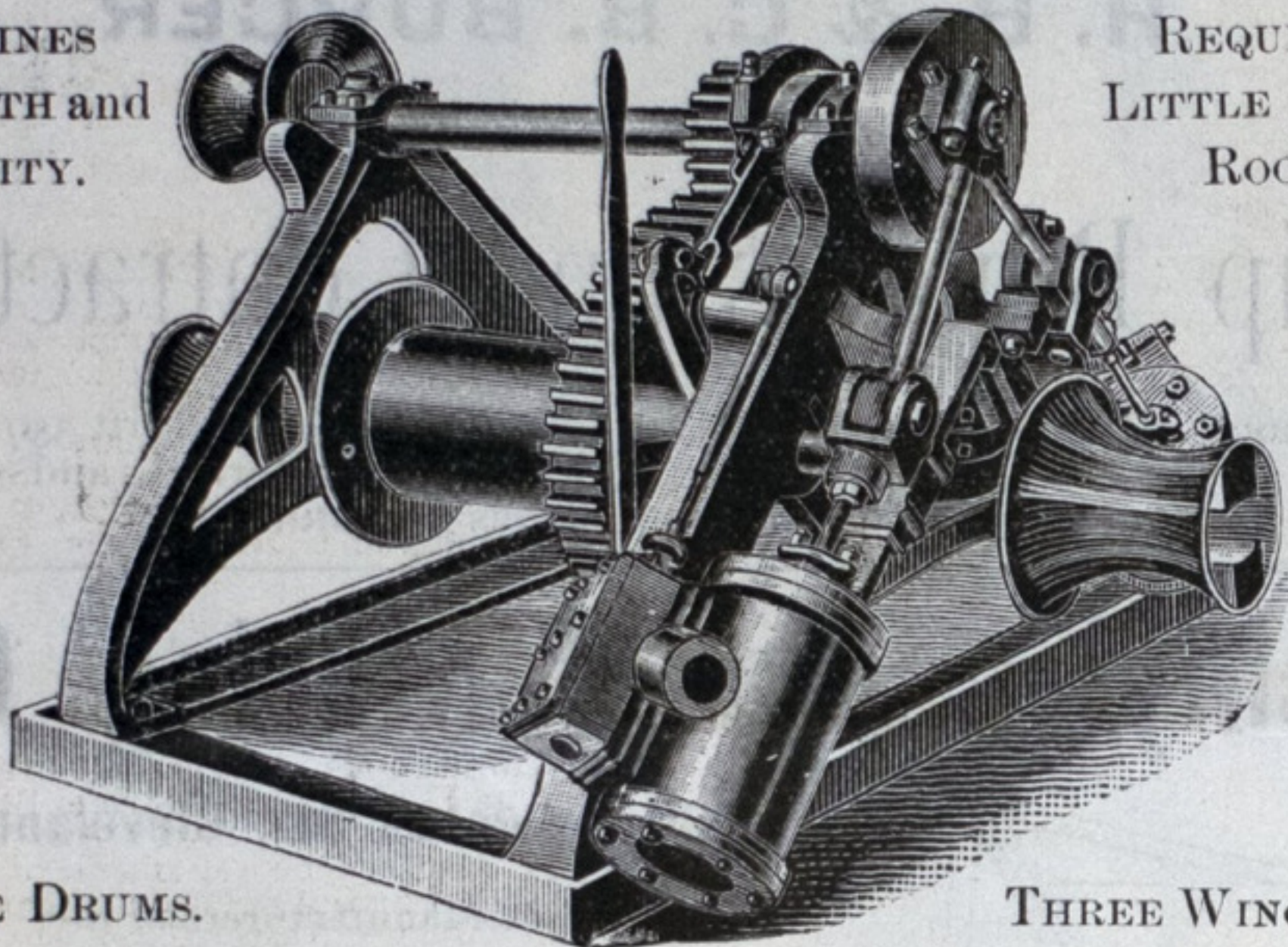
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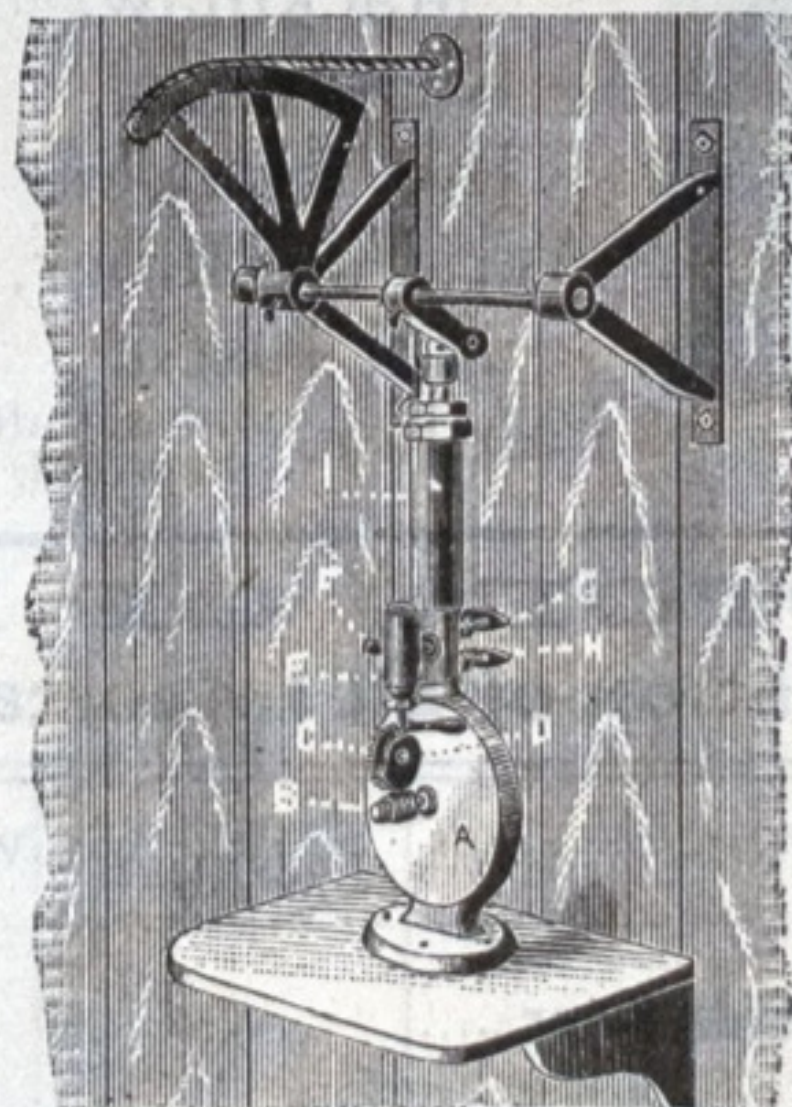
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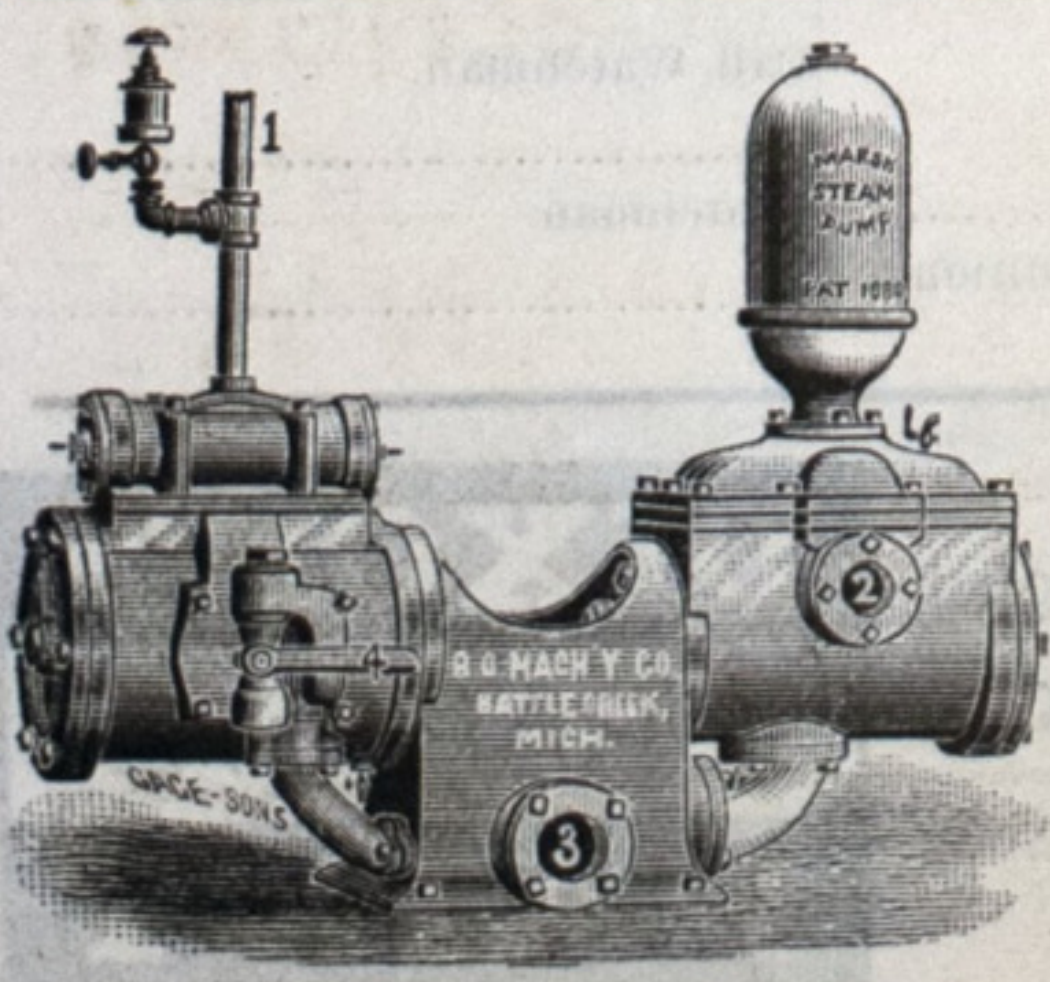
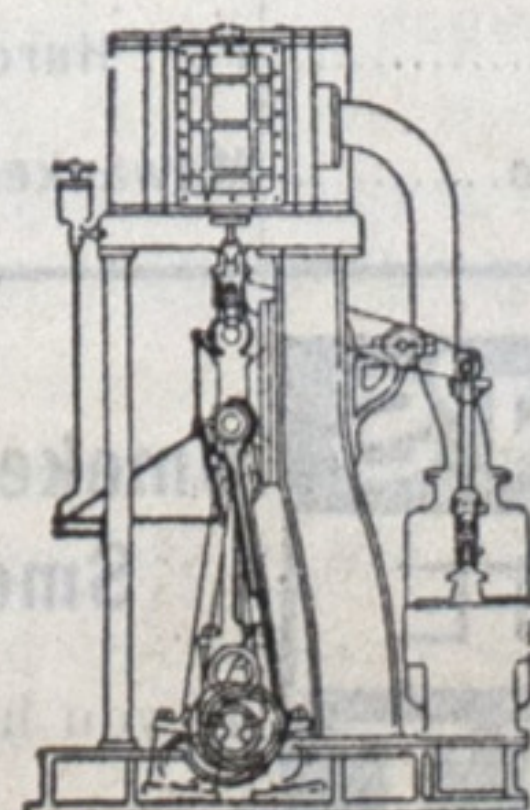
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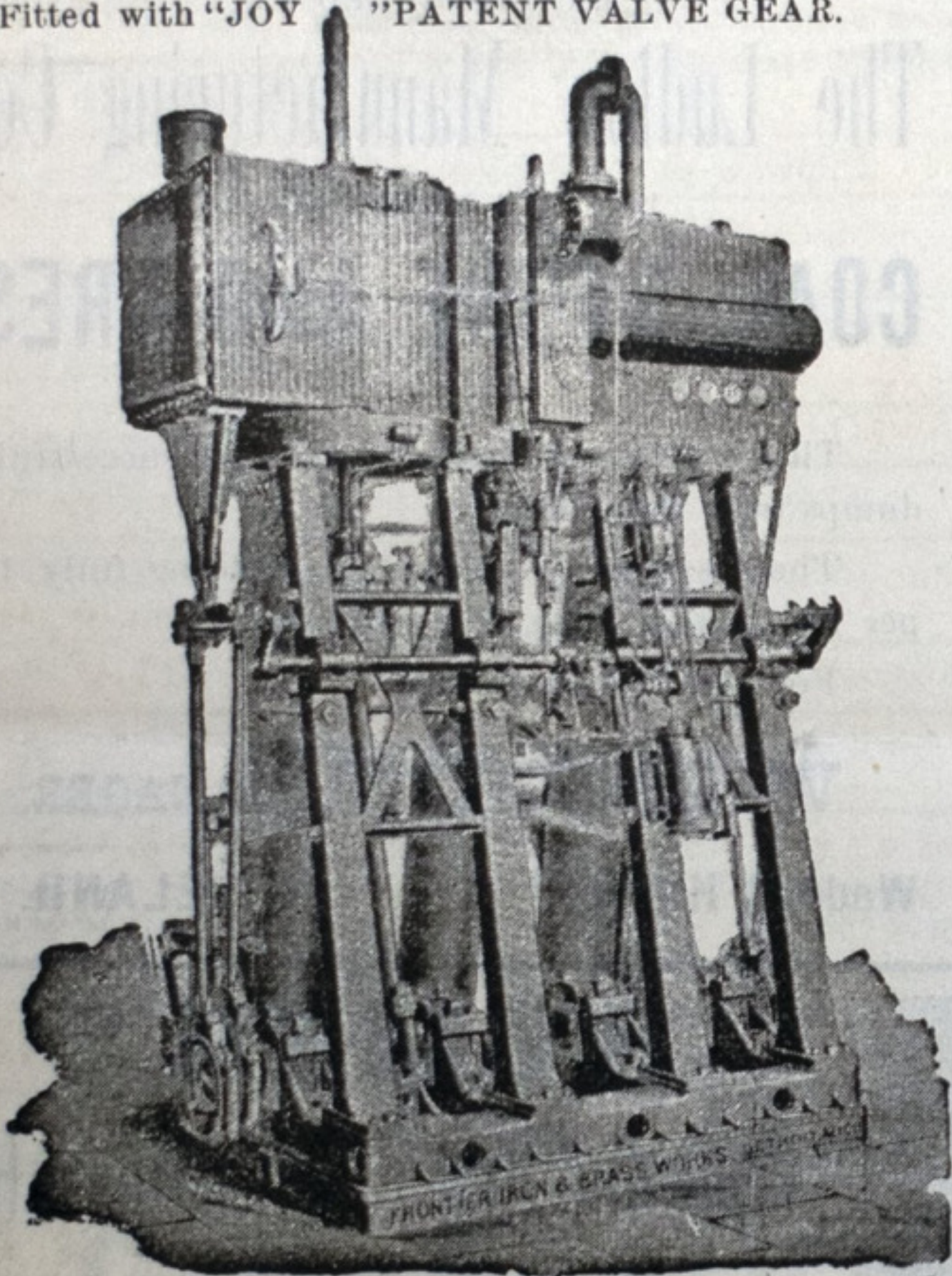
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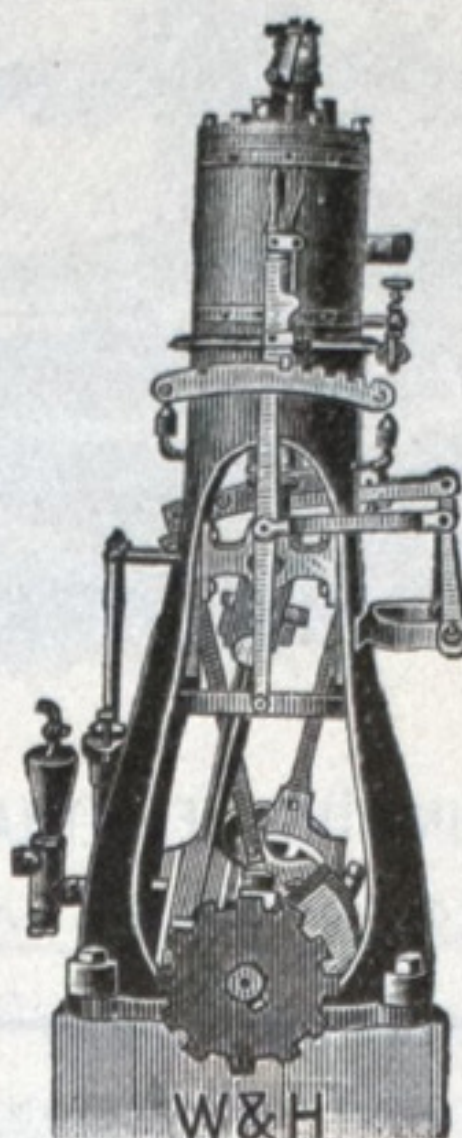
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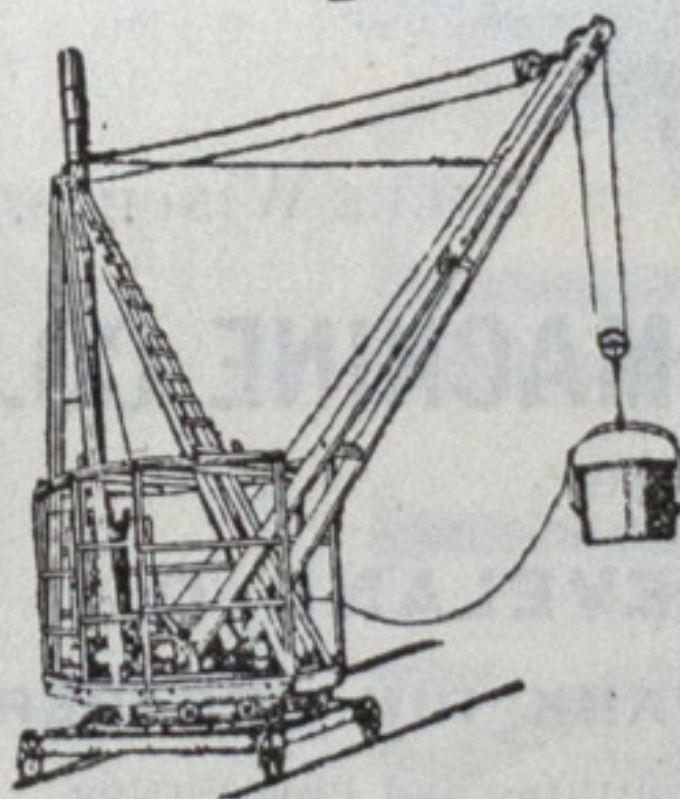
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